Amendments to the Specification

Paragraph beginning on page 15, line 17 and ending on page 16, line 15 is replaced with the following rewritten paragraph.

In step 1, a catalysis solution is first formed from water, an acid, and an oxidizer. The acid is preferably hydrochloric acid HCl, but other acids may be used, such as sulfuric acid H_2SO_4, nitric acid HNO_3, perchloric acid $HClO_4$, phosphoric acid H_3PO_4, acetic acid CH_3COOH, formic acid HCOOH, tartaric acid $C_4H_6O_6$, methanesulfonic acid CH_4SO_3, ethylsulfonic acid $C_2H_7SO_3$, 4-toluenesulfonic acid $C_7H_8SO_3$, and camphorsulfonic acid (CSA). The oxidizer is preferably ammonium peroxydisulfate $(NH_4)_2S_2O_8$, but other oxidizers may be used, such as iron chloride $FeCl_3$ and other peroxydisulfate derivates such as $Na_2S_2O_8$ and $K_2S_2O_8$. In step 2, a monomer solution is formed from a solution of a nonconducting monomer and an organic solvent. In the preferred form, the monomer is aniline, but other carbon-based organic monomers can be used, such as pyrrole, thiophene, toluidine, anisidine and other derivatives of aniline such as methylaniline, ethylaniline, 2-alkoxyaniline, and 2,5-dialkoxyaniline monomers, for forming polyaniline, polypyrrole, polythiophene, polytoluidine, polyanisidine, polymethylaniline, polyethylaniline, poly(2-alkoxyanilines) and poly(2,5-dialkoxyanilines) respectively. The organic solvent is preferably carbon tetrachloride (CCl_4), but other organic solvents may be used, such as benzene, toluene, chloroform, methylene chloride, xylene, hexane, diethylether, dichloromethane and carbon disufide. In the preferred form, aniline monomers are dissolved in carbon tetrachloride (CCl_4).